DOCUMENT RESUME

ED 142 043 FL 008 699

AUTHOR	Kay, Paul
TITLE	Constants and Variables of English Kinship Semantics. Working Papers of the Language Behavior Research Laboratory, No. 45.
INSTITUTION	California Univ., Berkeley. Language and Behavior Research Lab.
SPONS AGENCY	National Inst. of Mental Health (DHEW), Rockville, Md.
PUB DATE	74
GRANT	MH-25703
NOTE	30p.
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	*Dialect Studies; *English; Folk Culture; Language Research; Language Usage; *Language Variation; Linguistic Theory; Morphology (Languages); *Semantics; Social Factors; Sociolinguistics; Vocabulary
IDENTIFIERS	*Kinship Terms

ABSTRACT

The purpose of this paper is to present systematically some facts regarding interdialectal constant and varying features of the semantics of English kinship terminology. The data present some problems for current views of grammar and of linguistic variation. Regarding the former, it is not clear what sort of "rule," what place in grammar, the representation of the factual generalizations is to be accorded. Regarding the implications of the facts of constancy and variation in English kinship semantics for the overall conception of the nature of linguistic variation, it is generally concluded that the variation observed in English kinship semantics seems to reflect more directly the structural possibilities inherent in the language than social or sociolinguistic factors. The further conclusion may be drawn that the closer to sound the greater the extent of social determination of linguistic variation. (Author/AM)

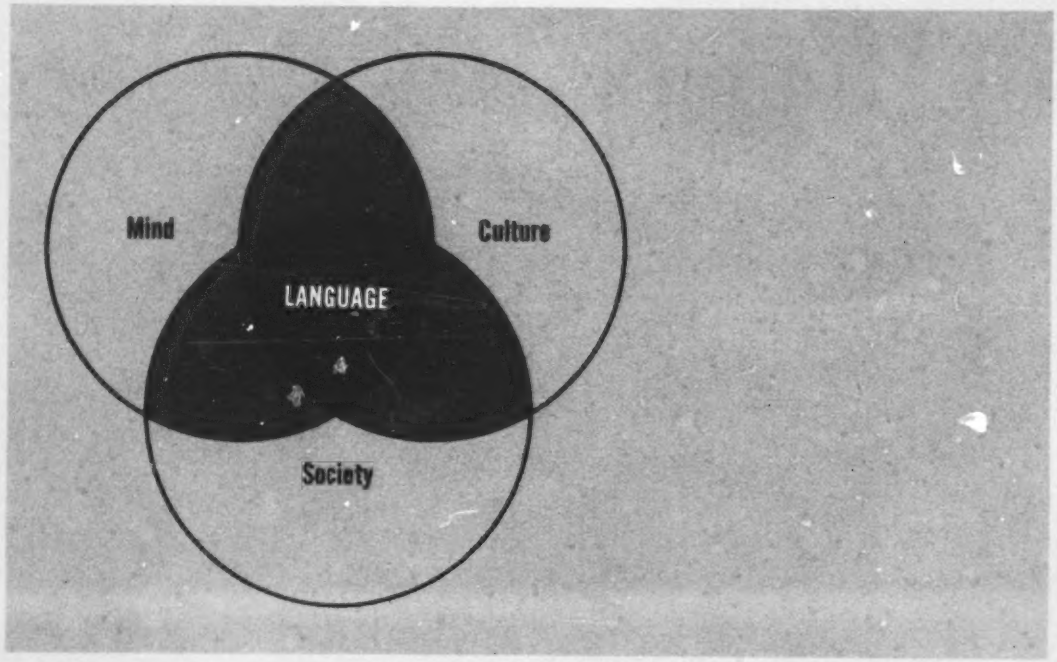
****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED142043

Working Papers of the
Language Behavior Research Laboratory
University of California, Berkeley



FL008699

The Language Behavior Research Laboratory is an interdisciplinary research project at the University of California at Berkeley. It is supported by Research Grant No. MH 25703 from the National Institute of Mental Health. This support is gratefully acknowledged.

CONSTANTS AND VARIABLES OF ENGLISH KINSHIP SEMANTICS

Paul Kay
University of California

Working Paper # 45
Language Behavior Research Laboratory
1974

The purpose of this paper is to present systematically some facts regarding interdialectical constant and varying features of the semantics of English kinship terminology. The data to be presented pose some problems for current views of grammar and of linguistic variation. As regards the former, it is not clear what sort of "rule", what place in grammar, the representation of the factual generalizations to be discussed below is to be accorded. I will not attempt to solve this problem here. Regarding the implications of the facts of constancy and variation in English kinship semantics for the overall conception of the nature of linguistic variation, I will have a bit more to say in the conclusion of the paper.

I have argued elsewhere (Kay 1973a) that the basic, invariant core of the system of kinship semantics of all dialects and varieties of English consists of five binary predicates, SELF, PARENT (the relation of parents to children), SIBLING, NUNCLE (the relation of aunts and uncles to nieces and nephews), and COUSIN. In addition, the singulary predicates MALE and FEMALE are of course involved, but these are not specific to kinship and have no specialized meaning in kinship contexts.[1] The five basic predicates are in turn defined by formulae of Grafik, a universal kinship algebra (Atkins 1972a, b; forthcoming). The few technical aspects of Grafik that will concern us here are briefly and informally explained as follows.[2]

Any consanguineal relation can be thought of as a tracing of consecutive child-of and parent-of links from one of the related persons up to a common ancestor and then down from the common ancestor to the other person. We use 'Q' to stand for child-of and 'P' to stand for parent-of. Since our focus is on the kin relations themselves rather than on particular individuals, we do not proceed in terms of a particular ego and alter, but rather express the relation independently of ego-alter direction. Specifically we normally express generationally asymmetric relations in the direction senior-to-junior; for examples in the form of Grafik employed here "Pat is the child of Leslie" is expressed by the same formula as "Leslie is the parent of Pat:" 'PARENT (Leslie, Pat)'. (For discussion of the substantive motivation for this approach, see Kay 1972a, especially note 6.)[3] By convention, the "child-of" part of the tracing is always written first. Thus, the relation diagrammed in conventional form in Figure 1a., which is called in my dialect "first cousin once removed," is given

the Grafic representation of Figure 1b, and corresponds to the English phase of Figure 1c.

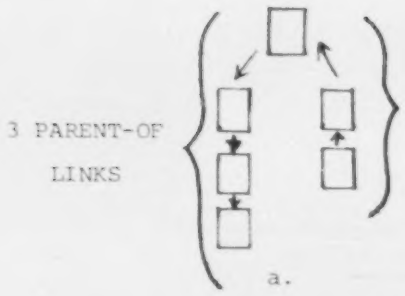


Figure 1. "First cousin once removed"

Since by convention the number of child-of links is always smaller than or equal to the number of parent-of links, the exponent on P may be expressed as the sum of the exponent on Q and a (possibly zero) residuum. Thus, in Figure 1, the exponent on Q represents the length of the shorter branch, ascending to the common ancestor (i.e., 2), and the exponent on P may be expressed as the sum of this number and the residuum (i.e., 2 +1). This way of splitting things up is not arbitrary. The number of links in the shorter chain corresponds to "degree of collaterality" in the sense of Lounsbury (1956:168n) (which in turn corresponds to the notion of collateral distance attested for modern Chinese; see Atkins 1972a:17ff, 1972c). The residuum, the number of links by which the longer chain exceeds the shorter, is the generational separation of the relation, in this case unity. Following Atkins (1972a) we use ' ' (Greek nu) for Lounsbury's "degree of collaterality" (= Atkins' "collateral removal" 1972:19) and ' ' (Greek delta) for generational distance. In general, a consanguineal relation may be expressed in terms of the two parameters collateral removal and generational distance , thus

(1) $Q^{\nu}P^{\nu+\delta}$

When $\delta = 0$, we have a "same generation" of "zero generation" relation.[4] Equipped with these preliminaries we may express the semantic structures underlying the basic predicates of English kinship (Table 1).

Grafik Representations

Basic Predicate	Compact Form	Expanded Form ν ν δ
SELF	$Q^0 P^0$	$Q^0P^0 + 0$
PARENT	$Q^0 P^1$	$Q^0P^0 + 1$
SIBLING	$Q^1 P^1$	$Q^1P^1 + 0$
NUNCLE	$Q^1 P^2$	$Q^1P^1 + 1$
COUSIN	$Q^2 P^2$	$Q^2P^2 + 0$

Table 1

Basic predicates of English kinship terminology and their Grafik representations in compact and expanded form.

It can be seen in Table 1 that--ignoring the singulary sex predicates MALE and FEMALE, which are peripheral the logic of the system--there is just one primitive predicate necessary to model all English consanguineal relations, PARENT-OF ('P'). CHILD-OF ('Q') may of course be defined as the converse of PARENT-OF (Kay 1973a; Atkins 1972a, forthcoming). In order to extend the analysis to affinal relations as well, we need add only the primitive SPOUSE-OF, written 'M' for marriage. Atkins (1972b:1) has given a general formula for the semantic representation of the English noun phrase my relative. This is easily converted to the definition of the English predicate, or deep morpheme (Talmy 1972; Kay 1972b, note 3) BE-RELATED-TO.[5]

(2) BE-RELATED-TO = df $(M^{u}Q^{\nu}P^{\nu+\delta}M^{v})^{\phi}$ $(u \leq v)$

where M, Q, P, ∨, δ, and ϕ are defined as already indicated and u, v are variables taking the values zero or onr.

The relations shown in Table 1 are, to my knowledge, present in all dialects and varieties of English. Upon these relations are based the deinfitions of the terms father, mother, sister, brother, son, daughter, uncle, aunt, nephew, and cousin (Kay 1973:Table 2). These facts are constants of English kinship semantics. They appear to constitute the semantic core of a system that has remained stable over centuries and across continents and gives every evidence of remaining so for the foreseeable future. We will turn our attention now to the meanings of certain bound morphemes that combine with the basic terms just listed to produce morphologically complex kinterms. It is in this area we will find interpersonal variation, although there is much here also that is constant across dialects. Among these data some general patterns regarding the distribution of constant and variable features may be observed: (1) the fewer the linguistic implications of a feature, i.e., the less a change in this feature entails adjustments elsewhere in the system, the more likely it is to vary among speakers; (2) some variable features have clear socio-geographical correlates although most do not.[6]

The four classes of superficial morphemes with which we are concerned are (1) great, grand, (2) -in-láw (not to be confused with the noun ín-làw(s) (Kay 1973a:note 4), (3) the expression by marriage and the uses of the nuncle and nibling terms to refer to relatives by marriage, and (4) first, second,...and once removed, twice removed,...as applied to cousin. The semantic representations underlying all of these forms involve the use of predicate modifiers (Kay 1973a). I will express the relationships in the form of "rules" employing arrows. One may, and I prefer, to

think of these "rules" as supplied with inessential "X-" and "-Y" end-variables (Postal 1971:106-110) on both sides of the arrow and to interpret them as transformations in the accepted sense (in so far as there is one). I give partial justification for this weak preference elsewhere (Kay:1973a: note 6). I have, however, no compelling arguments for this preference and one may equally well consider these "rules" as rules of semantic interpretation or projection if one prefers an interpretivist semantics or as meaning postulates in either a generative or interpretive semantic framework. In fact, I can find no outstanding arguments to be made for unequivocally classifying the generalizations encompassed in these "rules" into any particular part of any extant grammatical theory, and thus regard them merely as empirical generalizations that offer interesting challenges to existing grammatical theories. From now on, I will discuss these matters in the terminology of generative semantics, i.e., in a way that assumes underlying syntactic structures and semantic representations to be the same. In so doing, I commit myself to this assumption to the extent that it provides at present the most convenient vocabulary for talking about the facts I have to discuss.

Atkins' standard Grafik conventions use the symbols u, v for variables whose values range over {o, 1}; h, k for variables ranging over the natural numbers; and ϕ for a variable with the values {-1, +1}. The rules that follow are adapted from the "b" versions of the rules in Kay (1973b). They have been simplified in superficial form here by incorporating the side restrictions into the main body of the rule, as argued by Atkins (Personal communication), and by dropping inessential (syntactic) variables, in the sense of Postal (1971:106-110). This makes the parallel with the defining expressions of Atkins (1972b) much more apparent. There are also some minor substantive changes.

great, grand

(3) $Q^{u}P^{u+2+h} \rightarrow$ GREAT $Q^{u}P^{u+1+h}$

This way this rule operates is discussed in detail in Kay (1973a) and is in fact the only rule discussed in detail there. I will repeat here only some observations regarding variation in lexical insertion rules that operate after the application of rule (3). Repeated application of rule (3) eventuates in one of two results: a sequence of (h-1) GREAT's followed by $Q^{0}P^{1}$ or a sequence of (h-1) GREAT's followed by $Q^{1}P^{2}$. $Q^{0}P^{1}$ is replaced by PARENT and $Q^{1}P^{2}$ by NUNCLE. In either case, all dialects replace all but the last instance of the deep morpheme GREAT by the surface morpheme great. In the case of PARENT, all dialects replace the last instance of GREAT with grand. In the case of NUNCLE, dialects differ, some speaking of great uncles and grand nephews, some of great uncles and great nephews, etc. There does not seem to be any particular correlation between these usages and social geography that I can discover. Some idiolects may optionally delete all instances of great before any nuncle term; yielding uncle as an optional variant for great uncle (or grand uncle), great great uncle, etc. In some idiolects this may be obligatory. Again, I am aware of no regional or social predictors of these variant usages; Casson refers to the dialect he reports, which has optional reduction of great uncle, great great uncle,...to uncle, as "my own dialect of American English (Southside Chicago)" (1973:190), which suggests that he considers his own usage to be shared throughout the area indicated. Whether this areal homogeneity has been observed by Casson or is merely assumed is difficult to judge.

-in-law

(4) $(M^{u}Q^{w}PM)^{\phi} \rightarrow Q^{w}P$ IN-LAW (u≠w) inclusive dialect
(u=o) exclusive dialect

The inclusive dialect is, I believe, the more recent usage; spouse's siblings spouse's are considered siblings-in-law; for example, a man's wife's brother's wife is considered his sister-in-law. A personal anecdote may illustrate the lack of geographical correlation with dialect. My wife and I were raised 150 miles apart (Laurel, Miss., and New Orleans, La., respectively). Soon after marrying, I had occasion to refer to my wife's sister's husband as my brother-in-law (inclusive dialect). My wife corrected this usage saying that brother-in-law can't be used that way, and I accepted this, supposing I had just learned English wrong in that respect. More than ten years later I heard my mother use the term brother-in-law in a context that appeared to require the inclusive dialect interpretation. Questioning revealed that she had always used the inclusive dialect, which explains where I had gotten that usage. Since that time I have asked many Americans about their usage of brother-in-law/sister-in-law and found no geographical or apparent social correlation with the inclusive/exclusive dialect difference. An interesting aspect of the story is that it was possible for me to go for more than ten years without running across evidence in naturally occurring speech which demonstrated clearly that a large proportion of the speakers I was in contact with used the inclusive dialect that I had been raised on and had abandoned. One may conjecture that the inclusive dialect is newer and is part of a number of changes gradually creeping into the English system which reflect a tendency to think of the world of kinship as a series of sentimentally connected spouse pairs or nuclear family groups rather than a series of individuals

connected by specific ties of blood and law (Schneider 1968). This is purely a conjecture, but there are other changes taking place in the system, discussed below, which are also explained if this conjecture is correct.

uncle by marriage, aunt by marriage, niece by marriage, nephew by marriage

(5) $MQ^1P^2 \rightarrow Q^1P^2$ BY-MARRIAGE

Rule (5) accounts for the "affinal" senses of the nuncle terms by means of a later rule which simply deletes the deep morpheme BY-MARRIAGE, obligatorily in some dialects and optionally in others. Again, the variation does not seem to have any social or geographical correlation or significance. Rule (5), incidentally, shows that terms such as uncle are not polysemous (cf. Casson 1973) and do not require disjunctive definitions (D'Andrade 1970) in any interesting sense of those terms, both of which have generally been used by anthropological linguists in a way that presupposes a single structural level of syntax.

It may not be concluded from this, however, that Q^1P^2 and MQ^1P^2 (or Q^1P^2-BY-MARRIAGE) are distinct in underlying structure in the sense that that term is ordinarily used by generative semanticists. As McCawley (to appear) correctly points out, the usual test for ambiguity (non-identity of underlying structure) versus vagueness shows that a term like uncle is vague not only between the meanings mother's brother and father's brother but equally between either of these and mother's sister's husband or father's sister's husband. A sentence such as (6)a, may for example be correctly used to describe the facts given in (6)b.

(6)a One of my uncles is bald and so is one of Harry's.

b My mother's brother is bald and Harry's father's sister's husband is bald.

If these were all the relevant facts, we should conclude that rules like (5) were either meaning postulates of interpretive rules (or perhaps some kind of new pre-transformational rule that operates before the level of "underlying" structure is reached) but certainly not ordinary transformations. McCawley appears to conclude that the matter is as simple as testing for ambiguity versus vagueness and so finds that terms such as uncle are vague as between mother's brother, father's brother, mother's sister's husband, and father's sister's husband. This in turn predicts that "the semantic structure of 'x is y's maternal uncle' will simply be 'x is related to y through y's mother conjoined with 'x is y's uncle'" (McCawley to appear:4-33). But unfortunately the latter is not true; 'x is y's maternal uncle' can not be used appropriately when x is in fact y's mother's sister's husband. In general maternal and paternal can co-occur with only underlying Q^1P^2 but not with underlying MQ^1P^2 (or Q^1P^2 BY-MARRIAGE0. One's mother's sister's husband may not be referred to as his maternal uncle. (It could be that the difference here is truly a dialect difference between McCawley and myself, but that seems unlikely. In any case, my dialect is shared by everyone I've discussed the problem with who has maternal-/paternal- at all; and the facts of this dialect will need explaining.) It appears that, contra McCawley, the difference between consanguineal and "affinal" nuncles shows itself to be a structural one both semantically and syntactically, while this is not the case for the nuncles on the father's versus those on the mother's side. Just how this fact is to be incorporated into linguistic theory I am unfortunately not able to say. It seems, moreover, that what is at issue is not just an isolated fact but rather the linguistic status to be accorded "rules" such as (3), (4), and (5) and those of a similar nature discussed below and in Kay (1973a).[7]

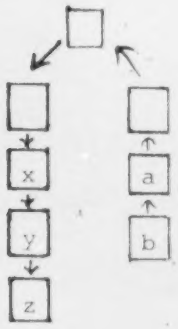
. . .cousin. . .

The most complex and interesting area of dialect variation in English kinship terminology arises in the methods of counting (or not counting) cousins. As far as I have been able to determine, most, but not all, speakers in North America and the British Isles belong to one of three major groups of dialects: (a) those who do not count cousins in any way, either restricting cousin to first cousins or using cousin both for first cousin (Q^2P^2) and also for any consanguineal relative (optionally that relative's spouse also) more distantly related than nuncles or niblings ($Q^{2+h}P^{2+h+k}$ or $MQ^{2+h}P^{2+h+k}$); (b) those who count cousins according to rule (7); (c) those who count cousins according to rule (8).

(7) $(Q^{2+h}P^{2+h+k})^{\phi} \rightarrow (\underline{h+1})\text{TH } Q^2P^2\underline{k}$ TIMES-REMOVED

(8) $(Q^{2+h}P^{2+h+k})^{\phi} \rightarrow (2h+k+1)\text{TH } Q^2P^2$.

The way rules (7) and (8) work is illustrated in Figure 2.



Pair of Individuals	Values of h and k	name of relation under rule (7)	under rule (8)
(a,x)	h=0 k=0	first cousin	first cousin
(a,y)	h=0 k=1	first cousin once removed	second cousin
(a,z)	h=0 k=2	first cousin twice removed	third cousin
(b,y)	h=1 k=0	second cousin	third cousin
(b,z)	h=1 k=1	second cousin once removed	fourth cousin

Figure 2

Illustration of operation of rules (7) and (8)

By Rule (7) the children of siblings are first cousins, the children of first cousins are second cousins, and so on. The number of TIMES-REMOVED $\underline{k}$ is of course just the generational separation (i.e., δ, the number by which the exponent on P exceeds the exponent on Q); the number of the cousin (i.e., first, second, etc.) is $v-1$, one less than the collateral removal of the relation, since SIBLING inhabits the first degree of collateral removal.

Rule (8) dispenses with the notion of removal and may be a historical simplification of the former dialect. I should hasten to add that I have no direct evidence for this conjecture, which is based principally on the fact that the second dialect is simpler and the system in general seems to be moving toward simplification and attenuation of the classification of more distant relatives.[8] According to rule (8), first cousins are defined in the same way as rule (7), i.e., Q^2P^2, and each link in each branch leading up to or down from a first cousin relation adds unity to the number of the cousin. Dialects (7) and (8) are the only fully productive ways of counting cousins in English I have come across, excluding asymmetric dialects--about which more below. Both are present in both Britian and North America and show, from my unsystematic sampling, no obvious regional or social correlates within these areas. I would guess that intensive investigation would uncover both of these dialects in other English speaking areas such as Australia, New Zealand and South Africa, but I have not performed such an investigation.[9]

I will now discuss a few dialects of cousin terminology, which I provisionally class as "minor", in order to give the reader some idea of the range of variation existing in English. The first family of dialects is known to me only from New Zealand and appears to be widespread there,

thus violating the general tendency of variable kinship classification to show no correlation with geographical variables.[10] In the first sub-dialect of this family first cousin refers to the relation Q^2P^2 (as in all dialects of English), second cousin designates Q^2P^3 (the relation designated first cousin once removed in the dialect (7) which I hypothesize to be the oldest), and all more distantly related consanguineals are designated forty-second cousin [sic]. Third cousin is recognized as a minority variant usage for forty-second cousin.[11] The second sub-dialect of this dialect uses the same surface forms, but with slightly different meanings. First cousin, of course, means Q^2P^2. Second cousin, however, designates not first cousin once removed, Q^2P^3, but the relation called in the hypothesized original dialect (7) second cousin, Q^3P^3. Forty-second cousin (or, again, alternately third cousin) designates any consanguineal relation more distant than Q^3P^3. This of course leaves the first cousins once removed unaccounted for. These are referred to with asymmetric, complex expressions depending on the direction of seniority; one's parent's first cousins are called a father's (mother's) cousin and one's first cousin's children are called cousin's child (son, daughter).

The final dialect to be considered is that of a man from Indianapolis, Indiana and another from Princeton, New Jersey. This dialect is entirely asymmetric, using parent's cousin, grandparent's cousin, etc., when counting upwards from ego to the first cousin pair and adding one cousin-unit for each link downward from that pair. First cousin, of course, refers to Q^2P^2 as in all dialects. The child of one's first cousin is called one's second cousin, the child of this person is one's third cousin, etc. One's parent's first cousin is called parent's cousin, one grandparent's first cousin is called grandparent's cousin, etc. One speaks of

a cousin of any type only for a relative of same or lower generation than the propositus. Hence, when there are links both ascending to and descending from the first cousin pair one must use the relevant ancestral term followed by the appropriately modified cousin term, e.g., my grandfather's second cousin. In the relation diagrammed in Figure 3, x refers to y as his grandfather's third cousin and y refers to x as her grandmother's fourth cousin.

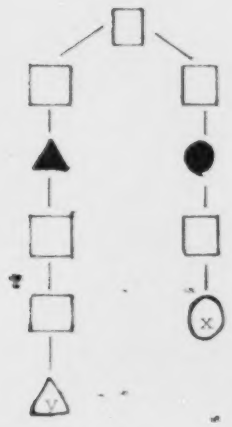


Figure 3

Illustration of a dialect
of English cousin terminology (see text)

The Indianapolis informant for this dialect is quite explicit about the conceptual asymmetry of the notion 'cousin' for him. He says, "For me, cousin contains a feature 'same or younger' [? = same or lower generation]." When I explained to him the operation of the dialects of cousin terminology which I have called major above, (7) and (8), he said that they seem silly to him in that, say, a seventh cousin could be several generations above as well as several generations below one. This man's dialect seems quite as bizarre to me as mine, rule (7), does to him and

yet we had previously talked together at length without discovering any semantic differences in our dialects and very likely could have continued to do so virtually indefinitely had I not specifically interviewed him about his cousin terminology. It would seem that with respect to things that people hardly ever talk about any more, such as distant cousins, idiolects may diverge radically without speakers becoming aware of the divergence.[12]

In a very general way, social events seem to be influencing English kinship semantics. The fragmentation of lineage and extended family systems, the reduction to the nuclear family as the only kinship group of any importance, and the loss of important ties between relatives who do not share any nuclear family memberships have led to a general attenuation of fine-grained reckoning of distant relatives. But the particular ways of achieving reduction of the (hypothesized) original system seem to appear in particular families and even particular individuals rather than following lines of geographical, class, or ethnic cleavage. If my hypothesis is correc- that the inclusive dialect for sibling's-in-law is newer than the exclusive dialect, it forms an interesting exception to the generalization than newer terminologies are inevitably reductions of older ones. But it is an exception that confirms, nevertheless, the two major points (a) that change is due principally to a social shift to the nuclear family as the only important kin group throughout most of the English speaking world (I exclude consideration of peasant communities for which I have no data), and (b) that the linguistic changes apparently stemming from these globally present social forces appear to take place capriciously so far as socio-geographical subdivisions within the society are concerned and are best thought of as representing logical possibilities inherent in the basic

system. A closely related view is expressed by A.F.C. Wallace (1970:844): "It would appear, furthermore, that the [American kinship] system is determined in its structure by its own grammar and thus is related only in the most general way to variations in customs of kinship behavior." (I am indebted to John Atkins for calling Wallace's perspicacious comment to my attention.) Carden has shown that variable phenomena comparable to those we have considered at the level of semantics operate also at levels more traditionally considered syntactic and further that many of these phenomena, like those discussed here, show no social or geographical correlation. He assigns such phenomena to "random dialects" which term he contrasts with social and geographical dialects, and proposes

> Any fully satisfactory analysis of a system of randomly distributed dialects must offer an explanation of how the language learners could have constructed different grammars from the same data. In other words, the grammars of randomly distributed dialects should differ only on points that are under-determined by the data likely to be available to the language learner (1972:8).

This is substantially the conclusion to which one is forced by independent consideration of semantic data such as those considered here.

The variation observed seems to reflect more directly the structural possibilities inherent in the language than it does social forces such as emulation of prestigious speakers (Labov 1966:482ff; 1973:84ff). This unperceived variation can also not serve "to symbolize the differing social entities which members may assume" (Blom and Gumperz 1972:421). Finally if one compares the absence of correlation of linguistic with social (including geographical) variables found here for semantic data to the strong socio-linguistic correlations by such workers as Labov and Gumperz, correlations which appear to increase in strength with the precision of phonetic detail, one is led to suspect that the degree of correlation to

social variables may differ from different linguistic levels: the closer to sound the greater the extent of social determination of linguistic variation.

Semantics appears to offer different possibilities for mechanisms of variation and change than does phonology. Whereas all phonetic habits become rapidly apparent in a small sample of speech, people can easily maintain different semantic systems and communicate with each other over long periods of time without becoming aware of the differences, so long as the differences are in semantic areas that are infrequently focussed on in conversation. That is, some things are infrequently talked about while there are no such things as speech sounds infrequently heard or phonological processes (Stampe 1972) infrequently employed. The English kinship system appears to have remained remarkably stable over a long time and a wide geographical area with respect to those central relations and relatives that everyone continues to talk about. In areas where people no longer talk about their relatives much any more, great variation, unpredictable from social factors, is found.[13]

NOTES

1. In this paper we will not be concerned with the singulary sex predicates, for the treatment of which see Kay (1973a).

2. For a rigorous presentation of Grafik, see Atkins (1972a, b; Forthcoming); for substantive motivation, see these references and also Kay (1973a, b).

3. It is occasionally necessary to distinguish in the expression for the relation itself between a kin relation and its converse (often called its 'reciprocal' in the anthropological literature). If the converse of a relation R holds between two individuals a, b, in that order, there are two common ways to express this fact in logic: one is to permute the argument expressions and write 'R(b,a)' (or in another familiar notation 'bRa') while the second is to alter the symbol expressing the relation and write '$R^{-1}(a,b)$' (alternatively '$aR^{-1}b$'). The major empirical motivation for distinguishing a relation from its converse in the study of kinship is not, as might be supposed, to provide distinct underlying semantic representations for such pairs of English words as (parent, child) which, I believe may tentatively be considered to derive from a single underlying predicate PARENT-OF with an argument-permuting transformation (perhaps ultimately relatable to passive) operating in the derivation of sentences containing the morpheme child in superficial structure (Kay 1973a:note 6; 1973b:86ff). Rather, we usually distinguish a kin relation from its converse so that we may speak of the relation formed by the union of a relation R and its converse R^{-1}. An example is the relation sibling-in-law which (in some dialects) is the union of the relation sibling's spouse and its converse spouse's sibling. In Grafik the union of a relation R and its converse is designated 'R^{ϕ}'; i.e., R^{ϕ} = df R or R^{-1}.

4. The type of composition of relations involved is not the familiar relative product but Atkins (1972b) geneaproduct, which has the important additional property that all nodes in the chain are necessarily distinct (so long as the chain does not contain the identity relation SELF $[P^{o},Q^{o},M^{o}]$).

5. Atkins' preference for defining the noun phrase my relative rather than a corresponding predicate would appear to derive from the emphasis upon superficial structure dictated by the influence of structural linguistics in anthropological semantics (Kay 1973b). This seems to complicate matters unnecessarily as the definiens of (2) is a proper part of the definiens Atkins gives for my relative. That is, Atkins' definition of my relative is in fact built out of the predicate expression $(M^{u}Q^{\cup}P^{\cup+\delta}M^{v})^{\emptyset}$ by the addition of logical machinery which converts a predicate expression to a special type of term, suggesting that my relative is in fact semantically more complex than BE-RELATED-TO.

Recent work (e.g., Bach 1968; McCawley 1970) has also produced a body of evidence and argument of a purely syntactic kind to the effect that all superficial nouns may be derived from underlying predicates, singulary or n-ary, and these arguments would appear to apply with particular force to relational nouns--many of which are explicitly deverbal in English (e.g,. employer, employee < employ). In many languages (e.g., Seneca) the derivation of kinterms with superficial nominal properties from verb roots is quite obvious and explicit (Kay 1973b). Since kinterms are relational nouns par excellence, if the hypothesis that semantic structure is the same as underlying syntactic structure is even remotely correct, then we would predict that kinterms will be derived from underlying verbal morphemes universally. (Often the source appears to be a conjunction of sentences with a binary and a singulary predicate. Thus John's father may come from something like the surface form one who is parent to John and who is male).

My notation differs trivially from Atkins' in employing the letter Q for CHILD-OF where he uses a backwards capital 'P'. The absence of an exponent on a relation symbol 'R' means the same as 'R^{1}'; or 'R^{+1}' in particular $P = P^{1}$, $Q = Q^{1}$, $M = M^{1}$.

6. The kind of linguistic variation dealt with here differs in several respects from that considered by workers such as Bickerton, Gumperz, Labov, Sankoff, and others who have dealt either with recordings of natural conversations or interviews conducted in situations which simulate as closely as possible the relevant social conditions of natural conversations. We deal in this paper with acceptability judgements, not with spontaneous speech, thus with reception rather than production and with deliberate rather than spontaneous responses. The kind of variation that Labov and others have treated in the form of variable rules does not arise in this context since what are taken for data here are judgments by the subject that are invariant for him over time. This method has the weakness of ruling out of the analysis the informant's answers to many of the questions the linguist would like to put to him and about him; it has the counter-balancing advantage of restricting the data in a principled way to portions of people's idiolects which are relatively invariant and hence subject to methods of analysis of conventional kinds.

Of course, if one assumes that a theory of language must be a theory of what speakers actually say, as contrasted, for example, to what they can understand, what they think they say, what they think they ought to say, what they think others say, etc., then unedited recordings of candid conversations are the only linguistic data. I think Chomsky's objections to the view that linguistic theory should be a theory of corpora of actual speech data are fundamentally sound, and one may note the cogency of these objections--which need not be rehearsed here--without adopting any particular version of the distinction between linguistic competence and other factors influencing speech performances. On the other hand, the assumption that carefully considered acceptability judgements, whether those of the linguists himself or of others, furnish direct and error-free access to underlying

'linguistic competence" is not self-evident, though it is frequently taken to be so. Some good results have been achieved using both kinds of data and deriving justification from both kinds of epistemological dogma. Scientists as a rule do better when doing science than when arguing epistemology, and linguists are probably no exception.

I do not wish here to enter an epistemological debate, but only to point out that in speaking of "variability" I am speaking of variation in the kind of acceptability-judgement data that generative linguists usually work with (e.g., Carden 1970, 1972, 1973) rather than in the sort of live-speech data encountered by those workers sometimes identified as variation theorists or socio-linguists. Discussions of "linguistic variation" do not always distinguish as carefully as they might these two distinct sorts of data.

7. It might be thought that the difficulties just presented could be avoided by returning to the traditional notion that the semantic content of a lexical item consists of an unstructured set of features (Chomsky 1965:_14), but I believe the semantic arguments presented against this view in Kay (1973a) are conclusive. More strictly syntactic arguments can be adduced, notably in specifying the selection conditions relevant to the lexical insertion of such modifying adjectives as distant or remote as in distant cousin, distant relative, remote ancestor, remote connection (the latter mostly in non-North American dialects of English). If the semantic structure of any underlying consanguineal relation is given by an expression of the form Q^iP^j, then the additional part of the semantic structure of the compound expressions with distant, remote, etc., may be naturally represented as roughly 'i+j is a big number'; the semantic problem of specifying their meaning is thus reduced to the general (albeit unsolved) problem of specifying what is meant by the expression big (number). If, however, the meanings of kinship terms are thought to consist of unstructured sets of features, there seems no way of

representing what is meant by distant, remote, close, etc., without adding to the componential analysis an ad hoc feature of "distance" which plays no role other than providing an out for this embarrassment and which will anyway have to be defined in some form equivalent to the 'Q^iP^j' notation. Moreover, such a tactic would require positing different definitions for all terms that take such modifiers (e.g., cousin, relative, ancestor) in dialects which differ only by the presence in one of such a modifier, hardly a desirable consequence.

8. Indirect evidence is given by the fact that both the Oxford and Webster's dictionaries give information on cousin consonant with rule (7), while the New Random House dictionary gives information compatible with rule (8). Webster's also mentions rule (8) type usage preceded by the words "though these are often called...." I'm indebted to William Geoghegan for pointing out these facts to me.

9. John Atkins (personal communication) has informed me of another productive cousin dialect lacking "removed", which, he says, is "very, very common--more common in my parts of the country I'm sure (Michigan, Philadelphia, Pacific NW) than (8)...there are [as in (8)] no 'removed's' and every cousin is a (h+k+1)th cousin. This simply incorporates the k (which is really delta) in with the h+1... It simplifies (7) in the obvious way: by coalescing the two relevant kinds of removal distinguished by (7), i.e., generational removal and collateral removal, into one kind, where the 'coalescence' is simply addition." That is, integral (non-removed) cousins are counted as in (7); the steps of removal are added to the "cousin number." For example, a second cousin once removed is a third cousin; a fifth cousin twice removed is a seventh cousin, and so on.

10. But even this exception is subject to qualification. See note 11.

11. I have a report of thirty-second cousin [sic] from two areas of Northeastern United States meaning "any cousin more distantly related than a second cousin" but without clear indication of homogeneity between informants on what second cousin means.

12. Robert Randall has pointed out to me that the fully productive cousin dialects can be cross-classified according as they are or are not symmetric (contain "reciprocal" usage) and whether or not they contain the concept of "removal", i.e., generational separation. (By 'fully productive' I mean in this context dialects which provide for the enumeration of an indefinitely large number of cousin relations: first, second, third,...). Dialects (7) and (8) and the one mentioned in Note 9 are of course symmetrical, the former employing "removal" and the latter two not. The dialects just described is asymmetric and does not contain removal. Randall has discovered an informant (from England) who exemplifies the final logical possibility, an asymmetric dialect with removal. The way this dialect works is illustrated in Figure 3. For this dialect, in Figure 3 person y refers to person x as her third cousin once removed, as would a speaker of dialect (7), but, asymmetrically, person x refers to person y as his fourth cousin once removed. There are two ways the logic behind this usage can be thought of: (1) ego calculates as in dialect (7) the number of his same generation cousin who is either an ancestor or descendant of alter; the number of steps (up or down) between alter and this (real or hypothetical person) is the removal number, (2) the number of steps from ego to a member of the ancestral sibling pair is the number of the cousin and the generational separation of ego and alter is the removal number.

13. I am indebted to William Geoghegan and Robert Randall for informative discussions regarding these data as well as the general subject of variation in

kinship semantics. Randall's unpublished work (nd) has been a major impetus for my interest in the subject. I also thank John Atkins for criticism of an earlier version and for many ideas on the subject of kinship in general.

REFERENCES CITED

Atkins, John R.

1972a On the fundamental consanguineal numbers and their structural basis. ms. To appear in American Ethnologist.

1972b GRAFIK definitions of English kinterms. Ms.

1972c Consanguineal distance measures. Ms. To appear in Man.

forthcoming GRAFIK: a general relational algebra for investigating kinship.

Bach, Emmon

1968 Nouns and noun phrases. Universals in Linguistic Theory (ed.) Bach, E. and R.T. Harms. Holt, Rinehart and Winston. New York.

Blom, Jan-Petter and John J. Gumperz

1972 Social meaning in linguistic structures: code-switching in Norway. Gumperz, John J. and Dell Hymes (eds.) Directions in Sociolinguistics. Holt, Rinehart and Winston. New York.

Carden, Guy

1970 A note on conflicting ideolects. Linguistic Inquiry. 1:281-90.

1972 Dialect variation and abstract syntax. In R. Shuy (ed.) New Directions in Linguistics. Georgetown University Press, Washington, D.C.

1973 Disambiguation, favored readings, and variable rules. In C.-J. Bailey and R. Shuy (eds.) New Ways of Analyzing Variation in English. Georgetown University Press, Washington, D.C.

Casson, Ronald

1973 Equivalence rule analysis of American kinship terminology. Anthropological Linguistics. 15:189-202.

D'Andrade, Roy G.

1970 Structure and syntax in the semantic analysis of kinship terminologies. P. Garvin (ed.) Cognition: A Multiple View. Sparton Books: New York.

Kay, Paul

1973a On the form of dictionary entries: English kinship semantics. In R. Shuy and C.-J. Bailey (eds.) Toward Tommorrow's Linguistics. Georgetown University Press: Washington, D.C.

1973b The generative analysis of kinship semantics: a reanalysis of the Seneca data. Working Papers in Linguistics. University of Hawaii. 5:79-95.

Labov, William

1966 The Social Stratification of English in New York City. Center for Applied Linguistics. Washington, D.C.

1973 The linguistic consequences of being a lame. Language in Society. 2:81-115.

McCawley, James D.

1970 Where do noun phrases come from? In Jacobs, R.A. and P.S. Rosenbaum (eds.) Readings in English Transformational Grammar. Waltham, Mass.: Ginn-Blaisdell.

to appear Syntactic andlogical arguments for semantic structures. Proceedings of the Fifth International Seminar on Theoretical Linguistics. Tokyo. TEC Corp.

Postal, Paul M.

1971 Cross-Over Phenomena. Holt, Rinehart and Winston: New York.

Randall, Robert

nd The semantic systems anaalysis of kinship terminologies: some conjectures about psychology and symbol change. Ms. 43pp.

Schneider, David M.

1968 American Kinship: A Cultural Account. Prentice-Hall: Englewood Cliffs, N. J.

Stampe, David

1972 A Dissertation on Natural Phonology. Unpublished Ph.D. dissertation. University ofChicago.

Talmy, Leonard

1972 Semantic Structure in English and Atsugewi. Unpublished Ph.D. dissertation. University of California, Berkeley.